

## Case 3068

***Musca rosae* Fabricius, 1794 (currently *Psila* or *Chamaepsila rosae*; Insecta, Diptera): proposed conservation of the specific name**

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**Abstract.** The purpose of this application is the conservation of the specific name of *Psila* (or *Chamaepsila*) *rosae* (Fabricius, 1794). This name has been in universal use for more than 200 years for the carrot fly (family PSILIDAE), which is an economically serious pest of carrots and other crops. It has no synonyms, but is a junior primary homonym of *Musca rosae* De Geer, 1776, which is an invalid junior synonym of *Scaeva pyrastris* (Linnaeus, 1758) in the SYRPHIDAE and has always been treated as such. The new name *Chamaepsila hennigi* Thompson & Pont, 1994 was put forward to replace *rosae* Fabricius because of the homonymy, but this name has not been used and its introduction would cause confusion in the economic and taxonomic literature.

**Keywords.** Nomenclature; taxonomy; Diptera; PSILIDAE; *Psila*; *Chamaepsila*; *Psila rosae*; *Chamaepsila rosae*; *Chamaepsila hennigi*; carrot fly.

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1. Fabricius (1794, p. 356) established the nominal species *Musca rosae* for a fly later classified in the family PSILIDAE; he noted that the adult insect was found on flowers. The specific name has been consistently used both in taxonomic and economic literature for the 'carrot fly', a serious pest of carrots and of other crops belonging to the family Apiaceae (alternatively called the Umbelliferae).

2. The generic placement of the species is not yet fully resolved. It has often, especially in the economic literature (a bibliography of which has been provided by Hardman, Ellis & Stanley, 1985) and in biological works (e.g. Petherbridge & Wright, 1943; Ashby & Wright, 1946; Osborne, 1961; Brindle, 1965; Smith, 1989) been included in *Psila* Meigen, 1803 (type species *Musca fimetaria* Linnaeus, 1761 by designation of Westwood (1840, p. 146)). However, many recent works have placed it in *Chamaepsila* Hendel, 1917 (p. 37), of which it is the type species by original designation.

3. The genus *Chamaepsila* has been recognized by Frey (1925), Hennig (1941), Shatalkin (1983), Soós (1984) and Wang (1988), and in many other recent papers dealing with various species of that genus. The division of *Psila* into four genera by Hennig (1941) was based mainly on chaetotactic characters which have uncertain significance, and it has not been accepted by some authors (e.g. Collin, 1944; Lyneborg, 1964; Shatalkin, 1986; Iwasa, 1991). These authors recognized several subgenera of *Psila* but all placed *rosae* Fabricius in the nominotypical subgenus *Psila* sensu stricto. In the case of the first two authors this was on the assumption that *Pelethophila* Hagenbach, 1822 was the correct name for the group containing *Psila fimetaria* (the type species of *Psila*; see para. 2 above), while the two more recent

authors placed both the *rosae* and *fimetaria* groups in *Psila* s. str., thus synonymizing *Psila* and *Chamaepsila*.

4. This application does not seek to address the taxonomic placement of *rosae* Fabricius, 1794, but rather its conservation as the valid specific name for the important carrot fly pest species, which has always been denoted by the name for more than 200 years.

5. Thompson & Pont (1994) examined the status of specific names which had been originally published in combination with the generic name *Musca* Linnaeus, 1758; in the 18th-century *Musca* was used as a 'catch-all' genus for many species of Diptera which later were recognized as very different. Thompson & Pont (p. 161) noted that *M. rosae* Fabricius, 1794 was a junior primary homonym of *M. rosae* De Geer, 1776 (p. 108). The species concerned have not been placed in the same genus or even family for nearly two centuries, and De Geer's name was invalid from the beginning: he himself noted in 1776 that Linnaeus had previously used the name *M. pyrastris*. Early authors (e.g. Stephens, 1829, p. 286; Walker, 1851, p. 287) also recorded that *M. rosae* De Geer is a junior synonym of *M. pyrastris* Linnaeus, 1758 (p. 594), now known as *Scaeva pyrastris* (family SYRPHIDAE). Despite these facts, Thompson & Pont (1994) rejected the universally used name *rosae* Fabricius. In the absence of any synonym, they proposed the new name *Chamaepsila hennigi* for the carrot fly; apart from being listed in the Zoological Record two years later the name *hennigi* has so far remained unused.

6. The replacement (which would certainly not be universal) of the specific name of *Psila* (or *Chamaepsila*) *rosae* (Fabricius, 1794) by the new name *hennigi* Thompson & Pont, 1994 would be contrary to the Preamble of the Code, which states that 'The object of the Code is to promote stability and universality ... All its provisions and recommendations are subservient to these ends'. It is important, and in the circumstances urgent, that the universally accepted specific name is conserved for the carrot fly pest, and that it is not rejected just because it was a primary homonym in *Musca* of a name which has always been invalid. There is a prima facie case under Article 79c of the Code for its conservation.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to rule that the specific name *rosae* Fabricius, 1794, as published in the binomen *Musca rosae*, is not invalid by reason of being a junior primary homonym of *Musca rosae* De Geer, 1776;
- (2) to place on the Official List of Generic Names in Zoology the name *Chamaepsila* Hendel, 1917 (gender: feminine), type species by original designation *Musca rosae* Fabricius, 1794;
- (3) to place on the Official List of Specific Names in Zoology the name *rosae* Fabricius, 1794, as published in the binomen *Musca rosae* (specific name of the type species of *Chamaepsila* Hendel, 1917), ruled in (1) above not invalid by reason of being a junior primary homonym of *Musca rosae* De Geer, 1776;
- (4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *hennigi* Thompson & Pont, 1994, as published in the binomen *Chamaepsila hennigi* (a junior objective synonym of *Musca rosae* Fabricius, 1794).

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).